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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/244,203	02/04/1999	BRETT L. HOWARD		3485

7590

01/15/2002

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CANADA

EXAMINER

CALLAHAN, PAUL E

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 01/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/244,203

Applicant(s)
Howard et al.

Examiner
Paul E. Callahan

Art Unit
2132



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/4/99
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/4/99 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-18 are pending in this application and have been examined.

BJ
Petition to correct inventorship is insufficient as 37 CFR 1.48(a) requires a statement from all added inventors of non-deceptive intent. Priority and consent of assignee(s).

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 contains the phrase "...for performing operations relating to the verification of data integrity." It is unclear from the language used what operations are performed; what is meant by "relate to"; and what is meant by "data integrity."

Claim 2 contains the term "comprising." It is unclear how the system of claim 1 can "comprise" the data storage means of claim 2. The term used should be "including."

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Claim 3 contains the phrase "comprising." The usage of the term is inappropriate in this context. It should be replaced with "including."

Claims 4, 5, and 10 contain the phrase "relating to the verification of data integrity." It is unclear how the hashing means of claims 4 and 10, and the digesting means of claim 5 are used in performing "operations relating to the verification of data integrity."

Claim 8 contains the phrase "...wherein data ciphering operations do not affect operation of the first processor." The meaning of the phrase is unclear.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1-3, 5, 8, 9, and 11-13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by US Patent 5,799,201 Lorenz et al. August 25, 1998.

As per claim 1; Lorenz teaches a system for ciphering data within a memory buffer comprising an integrated processor (fig. 2 data processor) for retrieving data from the memory buffer (fig. 2 items 3a, 3b), for ciphering the data (fig. 3 item 35 encryptor) and for performing operations relating to verification of data integrity (col. 3 lines 22-25, lines 45-51) the ciphering

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and the performed operations performed in parallel (col. 2 lines 7-17) the processor for providing processed data (col. 2 lines 1-6).

As per claim 2, Lorenz teaches means for storing the processed data in the memory buffer (fig. 2 items 9, 10 data bus, output a2).

As per claim 3, Lorenz teaches a controller forming part of the integrated processor (fig. 2 item 18, arithmetic logic unit ALU, and fig. 1 item 8, controller).

As per claim 5, Lorenz teaches encryption means (fig. 3 item 35 encryptor) and digesting means for performing verification operations (fig. 1 data processor, fig. 2 items 14, 18 ALU).

As per claims 8 and 11, Lorenz teaches a system for ciphering data comprising a memory buffer having a first port and a second port, a plurality of communications ports, a first processor in communication with the first port of the memory buffer and the plurality of communication ports, a second processor in communication with the second port of the memory buffer, the second processor for ciphering data within the memory buffer and for storing the data ciphered within the memory buffer (fig. 2 items 3a and 3b, items 4 and 5 Data processors, items 9 and 10 data buffers, fig. 3 items 35 encryptor, col. 4 lines 29-40).

As per claims 9 and 12, Lorenz teaches a memory buffer that comprises dual port RAM (col. 4 lines 4-10) which separates the second processor from the data bus (fig. 2 items 12, 16, 9 and 10).

As per claim 13, Lorenz teaches a first and a second processor operation asynchronously from one another (col. 2 lines 44-58).

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4, 6, 7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz as applied to claim 3 above, and further in view of Official Notice taken as detailed below.

Lorenz does not teach a hashing means, or a hashing means comprising HMAC hashing means, or an encryption means using DES or triple-DES. Official Notice may be taken however, that such steps are old and well known in the art of processor systems utilizing the features of Lorenz and utilized to carry out encryption operations. Therefore it would have been obvious to one of ordinary skill in the art to have incorporated these features into the system of Lorenz. Use of a hashing means, or a hashing means comprising HMAC hashing, or encryption via DES or triple DES would increase the security of the system.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz as applied to claim 8 above, and further in view of Official Notice taken as detailed below.

Lorenz does not teach first and second processors clocked by different clock sources that are asynchronous to one another. However official Notice may be taken that such arrangements of clock sources within processor systems carrying out encryption processing are old and well

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known in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated this feature into the system of Lorenz. It would have been advantageous to do so as this would increase the security of the system by making it more difficult compromise the security of the encryption processing by matching the power consumption of the processors to the encryption processing being carried out.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following US Patent documents teach processor systems similar to that of the applicant.

6,093,213	Favor et al.	July 25, 2000
6,134,591	Nickles	Oct. 17, 2000
6,067,595	Lindenstruth	May 23, 2000

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Callahan whose telephone number is (703) 305-1336. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on (703) 305-1830. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-9051.

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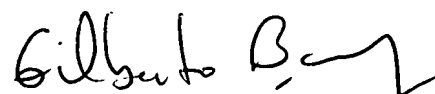
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

1/11/01

Paul Callahan



GILBERTO BARRON, JR.
PRIMARY EXAMINER
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